

# ST 745-001, Analysis of Survival Data, Spring 2009

Tuesday & Thursday 1:30 - 2:45PM, Fox 140

**Instructor:** Dr. Wenbin Lu

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Location: Bureau of Mines 110

**Course Prerequisite:** ST 521, 522.

## Course Resources:

- Text Book: Survival Analysis: Techniques for Censored and Truncated Data, by John P. Klein and Melvin L. Moeschberger (2003, 2nd Ed.)
- References: The Statistical Analysis of Failure Time Data by John D. Kalbfleisch and Ross L. Prentice (2002, 2nd Ed.); Modeling Survival Data: Extending the Cox Model by Terry M. Therneau and Patricia M. Grambsch (2000).
- Software: SAS or R
- Additional Online Materials: Please refer to my homepage, teach section. The contents will be updated regularly.

**Course Objectives:** By the end of this semester, you need to know the following:

- Concepts of censoring and truncation.
- Basic quantities for describing the distribution of survival data.
- Parametric methods for fitting the survival data.
- Nonparametric estimation method (eg. Kaplan-Meier estimates).
- Semiparametric method for regression problems (eg. Cox proportional hazards model).
- Using SAS or R software to analyze survival data

**Grading:** Homework 20%, Mid-term 30%, Final Exam 50%